Thermal Injury

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What we are not going to talk about

- Spectrum of heat injuries
  - ranges from discomfort and fatigue to incapacitation and death
- Components of heat stress
  - includes environment, clothing, work you are doing
- Why you care
  - decrease in G tolerance, increase in error rate, narrowed attention, and poor self assessment

What are we going to talk about

"Near-Fatal Heat Stroke during the 1995 Heat Wave in Chicago"

Annals of Internal Medicine

1 August 1998

- 21 % of people treated for heat stroke died
- survivors recovered “normal “ kidney, hematological and respiratory status
- 28% of survivors died within the first year
- hard boiled egg theory

The pilot who was a bad egg

- Deployed to Saudi/Arizona/Mississippi
  - stops exercising
  - increases his drinking
  - doesn’t eat well cause it’s too hot
  - tired of having to pee all the time
  - mild AGE from not washing his hands

The pilot who was a bad egg...

- Goes flying
  - difficulty concentrating, greys out on normally standard maneuvers, suffers nausea for the first time since UPT
  - fortunately lands without incident
- Feels bad about flying so poorly
  - goes to gym to work out
  - passes out and brought to e.r.

How our view of heat stroke is changing

- Old View
  - get heat stroke
  - die or recover
  - no sequela after
  - back to base line
- New View
  - you may recover but…
  - long term sequela 2nd to denaturation of proteins and enzymes
  - unclear how long affects continue

Be a good egg

- Acclimate to the warm temperature
- Stay hydrated
- Proper nutrition
- Limit alcohol and coffee
- Don’t get cooked

Questions?